wherein a top portion and a side portion of said heat sink are exposed to the surroundings of said package.

4. (One Time Amended) The integrated circuit package of claim 3, wherein said thermally conductive element is made of a material from the group consisting of alumina, aluminum nitride, beryllium oxide, ceramic material, copper, diamond compound, and metal.

5. (One Time Amended) The integrated circuit package of claim 3, wherein said integrated circuit package is a ball grid array integrated circuit package.

6. (One Time Amended) The integrated circuit package of claim 3, further comprising an interface element interposed between said thermally conductive element and said semiconductor die.

8. (One Time Amended) The integrated circuit package of claim 3, wherein a distance between said semiconductor die and said thermally conductive element is about five (5) mils or less.

9. (One Time Amended) The integrated circuit package of claim 3, wherein said semiconductor die is electrically connected to said substrate by direct chip attachment.

10. (One Time Amended) An integrated circuit package, comprising:

a semiconductor die electrically connected to a substrate;

a heat sink having a top portion and a side portion thereof exposed to the surroundings of said package;

means for thermally coupling said semiconductor die with said heat sink to dissipate heat from said semiconductor die to the surroundings of said package, wherein said means for thermally coupling is interposed between said semiconductor die and said heat sink but does not directly contact said semiconductor die; and

means for encapsulating said thermally conductive element and said heat sink such that said top portion and said side portion of said heat sink are exposed to the surroundings of said package.

13. (One Time Amended) The integrated circuit package of claim 12, wherein said interface element is in direct contact with said semiconductor die.

20. (One Time Amended) The integrated circuit package of claim 11, wherein said integrated circuit package is a ball grid integrated circuit package.

21. (One Time Amended) An integrated circuit package, comprising:

a substrate comprising:

means for electrically interconnecting a semiconductor die; and

means for exchanging electrical signals with an outside device;

a semiconductor die attached and electrically connected to said substrate by attachment means;

a heat sink having means for dissipating thermal energy to the surroundings of said package, said means comprising a top portion and a side portion;

means for thermally coupling said semiconductor die to said heat sink to dissipate heat from said semiconductor die to the surroundings of said package, wherein said means for thermally coupling is interposed between said semiconductor die and said heat sink but does not directly contact said semiconductor die; and

means for encapsulating said semiconductor die, said thermally conductive element and said heat sink such that said top portion and said side portion of said heat sink are exposed to the surroundings of said package.

Please add new claims 27-32: